
U.S. Department of the Interior • U.S. Geological Survey

MINERAL INDUSTRY SURVEYS

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CHROMIUM IN NOVEMBER 1997

Chromite consumption increased 13% in November 1997 compared with that of the previous month, according to the U.S. Geological Survey. Net production of chromium ferroalloys and metal in November 1997 increased 4% compared with production data for October 1997. Chromite stocks increased 26% over the same period. At the November rate of consumption, chromium stocks represented 7 months of

domestic supply.

Included in this Mineral Industry Surveys are U.S. consumption and stocks of chromite; U.S. net production, net shipments, and stocks of chromium materials; U.S. Government inventory for November 1997; and foreign trade for October 1997.

TABLE 1
U.S. SALIENT CHROMIUM STATISTICS 1/

(Metric tons, gross weight unless otherwise noted)

	1996	1997				
	Jan.-Dec.	Sept.	3rd quarter	Oct.	Nov.	Jan. - Nov.
Production:						
Chromium ferroalloys and metal: 2/						
Net production:						
Gross weight	36,800	5,380	16,400	4,810	4,980	56,300
Chromium content	26,400	3,630	10,800	3,080	3,240	37,700
Net shipments	38,800	2,320	14,900	5,620	3,810	56,900
Stainless steel production 3/	1,920,000	(4/)	476,000	NA	NA	1,520,000 5/
Components of U.S. supply:						
Stainless steel scrap receipts	579,000	48,400	166,000	62,200	41,800	638,000
Imports for consumption						
Chromite ore	250,000	967	79,000	60,700	NA	303,000 6/
Chromium ferroalloys 7/	420,000	56,000	127,000	15,000	NA	340,000 6/
Chromium metal 8/	8,730	726	2,450	870	NA	8,500 6/
Stainless steel	781,000	NA	NA	NA	NA	510,000 9/
Stainless steel scrap	50	NA	NA	NA	NA	NA
Distribution of U.S. supply:						
Consumption:						
Chromite ore	282,000	28,500	90,000	25,800	29,100	315,000
Chromium ferroalloys & metal	333,000	27,500	89,300	27,800	NA	300,000 6/
Exports:						
Chromite ore	69,400	1,370	3,190	1,050	NA	16,900 6/
Chromium ferroalloys	15,800	636	1,630	1,060	NA	8,220 6/
Chromium metal	1,330	210	801	43	NA	2,240 6/
Stainless steel	NA	NA	NA	NA	NA	NA
Stainless steel scrap	303	35	118	36	NA	322 6/
Stocks at end of period:						
Industry:						
Chromite ore:						
Chemical and metallurgical	165,000	171,000	171,000	158,000	201,000	XX
Refractory	7,890	8,500	8,500	8,180	7,760	XX
Total	173,000	179,000	179,000	166,000	209,000	XX
Chromium ferroalloys and metal:						
Producer	6,450	5,480	5,480	4,670	5,850	XX
Consumer	27,600	16,000	16,000	16,300	NA	XX
Government stockpile:						
Chromite ore	1,190,000	1,120,000	1,120,000	1,090,000	1,090,000	XX
Chromium ferroalloys	1,050,000	1,020,000	1,020,000	1,020,000	1,020,000	XX
Chromium metal	7,720	7,720	7,720	7,720	7,720	XX

NA Not available. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes low- and high-carbon ferrochromium, chromium concentrates, ferrochromium, chromium metal, and other miscellaneous alloys.

3/ Data on stainless steel production from American Iron and Steel Institute, quarterly production of stainless and heat resisting raw steel.

4/ Not reported monthly.

5/ Includes data for January through September; October and November data not available at time of publication.

6/ Includes data for January through October; November data not available at time of publication.

7/ Includes high-, medium-, and low- ferrochromium and ferrochromium silicon.

8/ Includes waste and scrap and other.

9/ Includes data for January through June; July, August, September, October, and November data not available at time of publication.

TABLE 2
U.S. GOVERNMENT STOCKPILE INVENTORY 1/ OF CHROMIUM MATERIALS 2/

(Metric tons)

Period	Chromite ore			Chromium ferroalloys			Chromium metal	
	Chemical	Metal-lurgical	Refractory	High-carbon ferro-chromium	Low-carbon ferro-chromium	Ferro-chromium silicon	Alumino-thermic	Electrolytic
1996:								
November	220,000	645,000	322,000	725,000	283,000	52,700	2,670	5,050
December	220,000	645,000	322,000	718,000	283,000	52,700	2,670	5,050
1997:								
January	220,000	637,000	322,000	704,000	283,000	52,700	2,670	5,050
February	220,000	633,000	322,000	695,000	283,000	52,700	2,670	5,050
March	220,000	627,000	318,000	695,000	283,000	52,700	2,670	5,050
April	220,000	626,000	318,000	695,000	283,000	52,700	2,670	5,050
May	220,000	620,000	312,000	689,000	283,000	52,700	2,670	5,050
June	217,000	614,000	309,000	689,000	283,000	52,700	2,670	5,050
July	217,000	611,000	309,000	689,000	283,000	52,700	2,670	5,050
August	217,000	592,000	309,000	689,000	283,000	52,700	2,670	5,050
September	217,000	592,000	309,000	689,000	283,000	52,700	2,670	5,050
October	217,000	565,000	309,000	689,000	283,000	52,700	2,670	5,050
November	217,000	565,000	309,000	689,000	283,000	52,700	2,670	5,050

1/ Includes specification and non-specification grade materials and materials set aside for disposal but not yet shipped.

2/ Data are rounded to three significant digits.

Source: Defense National Stockpile Center.

TABLE 3
U.S. EXPORTS OF CHROMITE ORE, CHROMIUM FERROALLOYS AND METAL 1/

Period	Chromite ore		Chromium ferroalloys 2/			Chromium metal 3/	
	Gross weight (metric tons)	Value (thousands)	Gross weight (metric tons)	Chromium content (metric tons)	Value (thousands)	Gross weight (metric tons)	Value (thousands)
1996:							
October	1,310	\$152	1,100	680	\$956	97	\$1,010
November	1,390	486	1,450	852	1,350	93	825
December	1,060	214	6,200	3,750	3,140	89	1,090
Jan.-Dec.	69,400	11,100	15,800	9,520	14,000	1,330	12,800
1997:							
January	1,540	364	635	405	718	60	600
February	5,930	977	975	609	1,160	142	1,120
March	1,480	487	841	527	939	180	1,260
April	1,830	376	1,060	561	1,300	379	2,610
May	1,230	237	1,020	585	1,030	387	2,820
June	643	131	995	589	1,090	251	1,840
July	759	222	358	220	387	274	1,900
August	1,070	307	633	385	714	317	2,040
September	1,370	260	636	368	730	210	1,740
October	1,050	394	1,060	543	1,200	43	528
Total	16,900	3,760	8,220	4,790	9,260	2,240	16,500

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes low-, medium-, and high-carbon ferrochromium, and ferrochromium-silicon.

3/ Includes wrought and unwrought and waste and scrap.

Source: Bureau of the Census.

TABLE 4
U.S. IMPORTS FOR CONSUMPTION OF CHROMITE ORE,
FERROCHROMIUM, AND CHROMIUM METAL 1/

(Metric tons)

	1996	1997			
	Jan.-Dec.	Aug.	Sept.	Oct.	Jan.-Oct.
Chromite ore:					
Not more than 40% chromic oxide:					
Gross weight	8,030	893	--	147	7,220
Chromic oxide content	2,650	107	--	68	2,150
More than 40% but less than 46% chromic oxide:					
Gross weight	25,400	5,250	--	--	19,500
Chromic oxide content	11,100	2,410	--	--	8,970
46% or more chromic oxide:					
Gross weight	217,000	68,000	967	60,700	276,000
Chromic oxide content	102,000	31,700	445	29,200	130,000
Total, all grades:					
Gross weight	250,000	74,100	967	60,800	303,000
Chromic oxide content	116,000	34,200	445	29,200	141,000
Ferrochromium:					
Low-carbon: 2/					
Gross weight	60,700	1,210	7,540	1,820	55,500
Chromium content	38,400	773	4,910	1,260	36,600
Medium-carbon: 3/					
Gross weight	36	1,300	--	--	1,550
Chromium content	23	671	--	--	831
High-carbon: 4/					
Gross weight	359,000	31,100	48,400	13,100	283,000
Chromium content	207,000	16,000	25,800	7,270	157,000
Total, all grades					
Gross weight	420,000	33,600	56,000	15,000	340,000
Chromium content	246,000	17,400	30,800	8,530	194,000
Chromium metal:					
Other than waste and scrap	8,670	902	726	860	8,490
Waste and scrap	67	--	--	10	11
Total, all grades	8,730	902	726	870	8,500

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Ferrochromium containing not more than 3% carbon.

3/ Ferrochromium containing more than 3% carbon but not more than 4% carbon.

4/ Ferrochromium containing more than 4% carbon.

Source: Bureau of the Census.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF CHROMITE ORE IN OCTOBER 1997,
BY GRADE AND BY COUNTRY 1/

Country	October			January-October		
	Gross weight (metric tons)	Cr ₂ O ₃ (metric tons)	Value 2/ (thousands)	Gross weight (metric tons)	Cr ₂ O ₃ (metric tons)	Value 2/ (thousands)
Not more than 40% chromic oxide:						
China	--	--	--	20	7	\$6
Japan	--	--	--	657	67	3
Philippines	--	--	--	5,780	1,910	1,050
South Africa	147	68	\$26	747	162	92
Venezuela	--	--	--	20	7	6
Total	147	68	26	7,220	2,150	1,160
More than 40% but less than 46% chromic oxide:						
South Africa	--	--	--	19,500	8,970	1,460
46% or more chromic oxide:						
Canada	--	--	--	13	6	5
Russia	--	--	--	22	261	117
South Africa	60,700	29,200	4,490	276,000	130,000	19,600
Total	60,700	29,200	4,490	276,000	130,000	19,800
Total, all grades:						
Canada	--	--	--	13	6	5
China	--	--	--	20	7	6
Japan	--	--	--	657	67	3
Philippines	--	--	--	5,780	1,910	1,050
Russia	--	--	--	22	261	117
South Africa	60,800	29,200	4,520	296,000	139,000	21,200
Venezuela	--	--	--	20	7	6
Total	60,800	29,200	4,520	303,000	141,000	22,400

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Customs import value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance and other charges incurred in bringing the merchandise to the United States.

Source: Bureau of the Census.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF FERROCHROMIUM IN OCTOBER 1997,
BY GRADE AND BY COUNTRY 1/

Country	October			January-October		
	Gross weight (metric tons)	Chromium content (metric tons)	Value 2/ (thousands)	Gross weight (metric tons)	Chromium content (metric tons)	Value 2/ (thousands)
High-carbon ferrochromium: 3/						
Albania	--	--	--	2,510	1,520	\$1,350
Canada	--	--	--	28	14	21
China	34	23	\$34	15,100	9,530	9,630
Croatia	--	--	--	10,400	6,730	5,540
India	--	--	--	11,200	7,010	6,880
Kazakstan	--	--	--	268	197	456
Russia	60	46	147	59,100	26,600	39,500
South Africa	8,450	4,330	3,650	91,800	44,700	38,800
Turkey	--	--	--	52,700	35,700	32,900
United Kingdom	9	6	15	82	56	63
Zimbabwe	4,590	2,870	2,980	39,600	25,000	24,100
Total	13,100	7,270	6,830	283,000	157,000	159,000
Medium-carbon ferrochromium: 4/						
China	--	--	--	17	11	16
Russia	--	--	--	210	137	240
South Africa	--	--	--	1,300	671	568
United Kingdom	--	--	--	22	12	9
Total	--	--	--	1,550	831	834
Low-carbon ferrochromium: 5/						
China	17	11	23	2,750	1,810	3,090
Germany	56	39	131	9,590	6,690	24,700
Japan	--	--	--	281	110	520
Kazakstan	--	--	--	1,300	845	1,560
Macedonia	--	--	--	21	15	15
Russia	1,110	787	1,570	28,600	19,500	36,200
South Africa	116	73	142	9,860	5,550	7,480
Sweden	--	--	--	20	14	34
Turkey	--	--	--	100	73	164
Zimbabwe	520	351	575	3,020	2,030	3,510
Total	1,820	1,260	2,440	55,500	36,600	77,300
Total, all grades:						
Albania	--	--	--	2,510	1,520	1,350
Canada	--	--	--	28	14	21
China	51	34	56	17,900	11,300	12,700
Croatia	--	--	--	10,400	6,730	5,540
Germany	56	39	131	9,590	6,690	24,700
India	--	--	--	11,200	7,010	6,880
Japan	--	--	--	281	110	520
Kazakstan	--	--	--	1,570	1,040	2,010
Macedonia	--	--	--	21	15	15
Russia	1,170	832	1,720	87,900	46,100	76,000
South Africa	8,570	4,400	3,790	103,000	50,900	46,900
Sweden	--	--	--	20	14	34
Turkey	--	--	--	52,800	35,800	33,100
United Kingdom	9	6	15	104	68	72
Zimbabwe	5,110	3,220	3,550	42,600	27,000	27,600
Total	15,000	8,530	9,270	340,000	194,000	237,000

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Customs import value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance and other charges incurred in bringing the merchandise to the United States.

3/ Ferrochromium containing more than 4% carbon.

4/ Ferrochromium containing more than 3% but not more than 4% carbon.

5/ Ferrochromium containing not more than 3% carbon.

Source: Bureau of the Census.

TABLE 7
U.S. IMPORTS FOR CONSUMPTION OF CHROMIUM METAL IN
OCTOBER 1997, BY GRADE AND BY COUNTRY 1/

Country	October		January-October	
	Gross weight (metric tons)	Value 2/ (thousands)	Gross weight (metric tons)	Value 2/ (thousands)
Waste and scrap:				
Canada	--	--	1	\$6
Japan	--	--	(3/)	7
United Kingdom	10	\$85	10	85
Total	10	85	11	98
Other than waste and scrap:				
Belgium	--	--	18	115
Bulgaria	--	--	80	276
Canada	--	--	1	3
China	240	1,520	2,110	13,000
France	165	1,380	1,590	13,000
Germany	7	151	114	1,180
Greece	--	--	1	7
Hong Kong	--	--	51	318
Israel	18	55	18	55
Italy	(3/)	3	2	27
Japan	3	284	157	4,730
Mexico	--	--	20	88
Russia	250	1,700	2,880	18,100
Switzerland	(3/)	6	(3/)	38
Taiwan	1	3	9	54
Thailand	--	--	(3/)	3
United Kingdom	176	1,470	1,430	11,900
Venezuela	--	--	(3/)	2
Total	860	6,570	8,490	62,800
Total, all grades:				
Belgium	--	--	18	115
Bulgaria	--	--	80	276
Canada	--	--	2	9
China	240	1,520	2,110	13,000
France	165	1,380	1,590	13,000
Germany	7	151	114	1,180
Greece	--	--	1	7
Hong Kong	--	--	51	318
Israel	18	55	18	55
Italy	(3/)	3	2	27
Japan	3	284	157	4,740
Mexico	--	--	20	88
Russia	250	1,700	2,880	18,100
Switzerland	(3/)	6	(3/)	38
Taiwan	1	3	9	54
Thailand	--	--	(3/)	3
United Kingdom	186	1,560	1,440	11,900
Venezuela	--	--	(3/)	2
Total	870	6,650	8,500	62,900

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Customs import value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance and other charges incurred in bringing the merchandise into the United States.

3/ Less than 1/2 unit.

Source: Bureau of the Census.

TABLE 8
U.S. IMPORTS FOR CONSUMPTION OF CHROMIUM METAL IN
OCTOBER 1997, BY GRADE AND BY COUNTRY 1/

Country	October		January-October	
	Gross weight (metric tons)	Value 2/ (thousands)	Gross weight (metric tons)	Value 2/ (thousands)
Waste and scrap:				
Canada	--	--	1	\$6
Japan	--	--	(3/)	7
United Kingdom	10	\$85	10	85
Total	10	85	11	98
Other than waste and scrap:				
Belgium	--	--	18	115
Bulgaria	--	--	80	276
Canada	--	--	1	3
China	240	1,520	2,110	13,000
France	165	1,380	1,590	13,000
Germany	7	151	114	1,180
Greece	--	--	1	7
Hong Kong	--	--	51	318
Israel	18	55	18	55
Italy	(3/)	3	2	27
Japan	3	284	157	4,730
Mexico	--	--	20	88
Russia	250	1,700	2,880	18,100
Switzerland	(3/)	6	(3/)	38
Taiwan	1	3	9	54
Thailand	--	--	(3/)	3
United Kingdom	176	1,470	1,430	11,900
Venezuela	--	--	(3/)	2
Total	860	6,570	8,490	62,800
Total, all grades:				
Belgium	--	--	18	115
Bulgaria	--	--	80	276
Canada	--	--	2	9
China	240	1,520	2,110	13,000
France	165	1,380	1,590	13,000
Germany	7	151	114	1,180
Greece	--	--	1	7
Hong Kong	--	--	51	318
Israel	18	55	18	55
Italy	(3/)	3	2	27
Japan	3	284	157	4,740
Mexico	--	--	20	88
Russia	250	1,700	2,880	18,100
Switzerland	(3/)	6	(3/)	38
Taiwan	1	3	9	54
Thailand	--	--	(3/)	3
United Kingdom	186	1,560	1,440	11,900
Venezuela	--	--	(3/)	2
Total	870	6,650	8,500	62,900

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Customs import value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance and other charges incurred in bringing the merchandise into the United States.

3/ Less than 1/2 unit.

Source: Bureau of the Census.